

REMARKS

Reconsideration of the outstanding Office Action is respectfully solicited.

Amendment of Claim 1 is based on the examples and on claim 4 and on claim 9. Amendment of the remaining claims provides corresponding antecedents. New Claims 10 et seq are supported by page 3 paragraph 0010, of the specification.

Claim 8 has been amended with respect to the spelling of anthracene and benzanthrazene. Claim 9 is cancelled. Accordingly, applicants respectfully submit that the objections to Claims 8 and 9 are moot.

Applicants respectfully traverse the rejection of claims 1, and 3-5 over Tymianski et al. [US 5606638], under 35 U.S.C. 102. Tymianski et al (US 5,606,638) disclose an optical fiber used as a scintillator. A scintillator converts incident high energetic particles or rays like neutrons, x-rays or gamma-rays into low energetic rays in the visible or ultraviolet range and provides means for the detection of the converted rays. Applicants, however, provide a fiber optic material, in which the organic compound introduced therein changes the refractive index of the incident light. A variation of the refractive index means a variation of the velocity whereas a scintillator varies the energy of the incident light.

Moreover, the claims are not obvious over Tymianski et al since a scientist would not use this document as source. Due to the non-linear dispersion relationship between energy and velocity of electromagnetic rays interacting with matter, a

scientist would never conclude that a material which is suitable as scintillator, i.e. energy modifier, is also suitable as velocity modifier, i.e. for variation of the refractive index.

Applicants respectfully traverse the rejection of claims 1-4 and 6 over Maxwell, under 35 U.S.C. 102. Maxwell does not describe or suggest the original application claims or the claims herein. No facts determined in the Office Action establish the fact that the subject matter of each of the rejected claims is found in the Maxwell reference. Please see MPEP Section 2131.

Maxwell (WO 03/012500 A1) discloses an optical amplifier comprising a polymer and a rare earth metal used for amplification; that rare earth metal is the central atom preferably surrounded by condensed aromatic ring systems as ligands.

Maxwell does not describe a fiber optic material, in which the organic compound introduced therein is a condensed aromatic ring system without a necessary central atom. Thus Maxwell does not describe the claims of this application within the meaning of MPEP Section 2131.

Maxwell (page 10, first section), moreover, discloses that the organic compound is used as ligand, as is clearly stated to be the case by the U.S. Patent Office. The ligand is suitable for

- improved dispersion of the rare earth atom in the polymer,
- providing a minimum distance between two rare earth atoms, and
- influencing the electronic structure of the central rare earth atom.

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The modified rare earth atom is introduced to perform the task of amplifying, i.e. compensating for the transmission losses. By comparison, the present application, page 3, section [00081]), does not require optical fiber transmission reductions/losses.

Applicants respectfully traverse the rejection of claims 1-5, 7-9 over Fujiyama et al (US 2003/085387 A1 = WO 01/192925 A1 = EP 1 291 679 A1) under 35 U.S.C. 102. Fujiyama et al disclose a fiber optical material which is used for the core of an optical waveguide. According to formula 1 on page 1, optical materials are all aromatic sulfides which comprise condensed aromatic ring systems but which are - as a whole - not the recited condensed aromatic ring system.

Fujiyama et al only deals with aromatic sulfides and this would not give a scientist any basis to modify the organic compound in the way claim recited in amended Claim 1.

Reconsideration and an early allowance are respectfully solicited.

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Respectfully submitted,

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